

Application No. 10/717,434
Response to Final Office Action
Page -2-

58404(50533)

AMENDMENTS TO THE CLAIMS**RECEIVED
CENTRAL FAX CENTER****JAN 18 2007**

This listing of claims will replace all prior listings thereof.

Claims 1-42 (cancelled).

Claim 43 (currently amended): An oligonucleotide which has the formula (in 5' to 3' order): A-B-C-D, in which,

A represents a sequence of locked nucleotide units;

B represents a sequence of non-locked nucleotide units, wherein B has a length of 4-20 nucleotide units;

C represents a sequence of locked nucleotide units; and

D represents a non-locked nucleotide unit or a sequence of non-locked nucleotide units.

Claim 44-46 (cancelled)

Claim 47 (previously presented): An oligonucleotide according to claim 43, wherein:

A has a length of between 2-6 nucleotide units;

B has a length of between 4-12 nucleotide units;

C has a length of between 1-5 nucleotide units;

D has a length of 1-3 nucleotide units;

and the overall length of the oligonucleotide is between 8-26 nucleotide units.

Claim 48 (currently amended): An oligonucleotide according to claim 43, wherein:

A has a length between 3-5 nucleotide units;

B has a length between 6-10 nucleotide units;

C has a length between 2-4 nucleotide units;

D has between 1-2 nucleotide units;

and the overall length of the oligonucleotide is between 12-21 nucleotide units.

Application No. 10/717,434
Response to Final Office Action
Page -3-

58404(50533)

Claim 49 (currently amended): An oligonucleotide according to claim 43, wherein:

A has a length of 2-5 ~~[[4]]~~ nucleotide units;

B has a length between 7-9 nucleotide units;

C has a length of 2-4 ~~3~~ nucleotide units;

D has a length of 1-2 nucleotide units;

and the overall length of the oligonucleotide is between 15-17 nucleotide units.

Claim 50 (previously presented): An oligonucleotide according to claim 43, wherein

A has a length of 4 nucleotide units;

B has a length of 8 nucleotide units;

C has a length of 3 nucleotide units;

D has 1 nucleotide unit;

and the overall length of the oligonucleotide is 16 nucleotide units.

Claim 51 (previously presented): An oligonucleotide according to claim 43, in which the locked nucleotide units in A and C are beta-D-oxy-LNA units.

Claim 52 (cancelled)

Claim 53 (currently amended): An oligonucleotide according to claim 45 ~~94~~, in which the locked nucleotide units in A and C are beta-D-oxy-LNA units.

Claim 54 (cancelled)

Claim 55 (previously presented): An oligonucleotide according to claim 47, in which the locked nucleotide units in A and C are beta-D-oxy-LNA units.

Claim 56 (previously presented): An oligonucleotide according to claim 48, in which the locked nucleotide units in A and C are beta-D-oxy-LNA units.

Application No. 10/717,434
Response to Final Office Action
Page -4-

58404(50533)

Claim 57 (previously presented): An oligonucleotide according to claim 49, in which the locked nucleotide units in A and C are beta-D-oxy-LNA units.

Claim 58 (previously presented): An oligonucleotide according to claim 50, in which the locked nucleotide units in A and C are beta-D-oxy-LNA units.

Claim 59 (previously presented): An oligonucleotide according to claim 43, wherein the internucleoside linkages independently are selected from the group consisting of $-O-P(O)_2-O-$, $-O-P(O,S)-O-$, $-O-P(S)_2-O-$, $-NR^H-P(O)_2-O-$, $-O-P(O,NR^H)-O-$, $-O-PO(R'')-O-$, $-O-PO(CH_3)-O-$, and $-O-PO(NHR^N)-O-$, where R^H is selected from hydrogen and C_{1-6} -alkyl, and R'' is selected from C_{1-6} -alkyl and phenyl.

Claim 60 (previously presented): An oligonucleotide according to claim 43, in which B comprises at least one internucleotide linkage which is not a $-O-P(O)_2-O-$ linkage.

Claim 61 (previously presented): An oligonucleotide according to claim 43, in which B comprises at least one internucleotide linkage which is not a phosphorothioate linkage.

Claim 62 (previously presented): An oligonucleotide oligonucleotide according to claim 43, in which B represents a sequence of nucleotide units that makes the oligonucleotide able to recruit RNase H when hybridised to a target nucleic acid.

Claim 63 (currently amended): An oligonucleotide according to claim 43, wherein:

A has a length between 3-5 nucleotide units;

B has a length between 6-10 nucleotide units;

C has a length between 2-4 nucleotide units;

D has a length between 1-2 nucleotide units;

the overall length of the oligonucleotide is between 12-21 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B represents a

Application No. 10/717,434
Response to Final Office Action
Page -5-

58404(50533)

sequence of nucleotide units that makes the oligonucleotide able to recruit RNase H when hybridised to a target nucleic acid.

Claim 64 (currently amended): An oligonucleotide according to claim 43 wherein:

A has a length between 3 ± 5 nucleotide units;

B has a length between 6-10 nucleotide units;

C has a length between 2-4 nucleotide units;

D has a length between 1-2 nucleotide units;

the overall length of the oligonucleotide is between 12-21 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein the internucleoside linkages independently are selected from the group consisting of $-O-P(O)_2-O-$, $-O-P(O,S)-O-$, $-O-P(S)_2-O-$, $-NR^H-P(O)_2-O-$, $-O-P(O,NR^H)-O-$, $-O-PO(R'')-O-$, $-O-PO(CH_3)-O-$, and $-O-PO(NHR^N)-O-$ where R^H is selected from hydrogen and C_{1-6} -alkyl, and R'' is selected from C_{1-6} -alkyl and phenyl.

Claim 65 (currently amended): An oligonucleotide according to claim 43, wherein:

A has a length between 3 ± 5 nucleotide units;

B has a length between 6-10 nucleotide units;

C has a length between 2-4 nucleotide units;

D has a length between 1-2 nucleotide units;

the overall length of the oligonucleotide is between 12-21 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B comprises at least one internucleotide linkage which is not a $-O-P(O)_2-O-$ linkage.

Claim 66 (currently amended): An oligonucleotide according to claim 43, wherein:

A has a length between 3 ± 5 nucleotide units;

B has a length between 6-10 nucleotide units;

C has a length between 2-4 nucleotide units;

D has a length between 1-2 nucleotide units;

Application No. 10/717,434
Response to Final Office Action
Page -6-

58404(50533)

the overall length of the oligonucleotide is between 12-21 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B comprises at least one internucleotide linkage which is not a phosphorothioate linkage.

Claim 67 (previously presented): An oligonucleotide according to claim 43, wherein:

A has a length between 2-6 nucleotide units;

B has a length between 4-12 nucleotide units;

C has a length between 1-5 nucleotide units;

D has a length between 1-3 nucleotide units;

the overall length of the oligonucleotide is between 8-26 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B represents a sequence of nucleotide units that makes the oligonucleotide able to recruit RNase H when hybridised to a target nucleic acid.

Claim 68 (previously presented): An oligonucleotide according to claim 43, wherein:

A has a length between 2-6 nucleotide units;

B has a length between 4-12 nucleotide units;

C has a length between 1-5 nucleotide units;

D has a length between 1-3 nucleotide units;

the overall length of the oligonucleotide is between 8-26 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein the internucleoside linkages independently are selected from the group consisting of -O-P(O)₂-O-, -O-P(O,S)-O-, -O-P(S)₂-O-, -NR^H-P(O)₂-O-, -O-P(O,NR^H)-O-, -O-PO(R^N)-O-, -O-PO(CH₃)-O-, and -O-PO(NHR^N)-O- where R^H is selected from hydrogen and C₁₋₆-alkyl, and R^N is selected from C₁₋₆-alkyl and phenyl.

Claim 69 (previously presented): An oligonucleotide according to claim 43, wherein:

A has a length between 2-6 nucleotide units;

B has a length between 4-12 nucleotide units;

C has a length between 1-5 nucleotide units;

Application No. 10/717,434
Response to Final Office Action
Page -7-

58404(50533)

D has a length between 1-3 nucleotide units; the overall length of the oligonucleotide is between 8-26 nucleotide units;
the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B comprises at least one internucleotide linkage which is not a -O-P(O)₂-O- linkage.

Claim 70 (previously presented): An oligonucleotide according to claim 43, wherein:
A has a length between 2-6 nucleotide units;
B has a length between 4-12 nucleotide units;
C has a length between 1-5 nucleotide units;
D has a length between 1-3 nucleotide units; the overall length of the oligonucleotide is between 8-26 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B comprises at least one internucleotide linkage which is not a phosphorothioate linkage.

Claim 71 (previously presented): An oligonucleotide according to claim 43, wherein:
A has a length of 4 nucleotide units;
B has a length between 7-9 nucleotide units;
C has a length of 3 nucleotide units;
D has 1 nucleotide unit;
the overall length of the oligonucleotide is between 15-17 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B represents a sequence of nucleotide units that makes the oligonucleotide able to recruit RNase H when hybridised to a target nucleic acid.

Claim 72 (previously presented): An oligonucleotide according to claim 43, wherein:
A has a length of 4 nucleotide units;
B has a length between 7-9 nucleotide units;
C has a length of 3 nucleotide units;
D has 1 nucleotide unit;

Application No. 10/717,434
Response to Final Office Action
Page -8-

58404(50533)

the overall length of the oligonucleotide is between 15-17 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein the internucleoside linkages independently are selected from the group consisting of -O-P(O)₂-O-, -O-P(O,S)-O-, -O-P(S)₂-O-, -NR^H-P(O)₂-O-, -O-P(O,NR^H)-O-, -O-PO(R'')-O-, -O-PO(CH₃)-O-, and -O-PO(NHR^N)-O- where R^H is selected from hydrogen and C₁₋₆-alkyl, and R'' is selected from C₁₋₆-alkyl and phenyl.

Claim 73 (previously presented): An oligonucleotide according to claim 43, wherein:

A has a length of 4 nucleotide units;

B has a length between 7-9 nucleotide units;

C has a length of 3 nucleotide units;

D has 1 nucleotide unit;

the overall length of the oligonucleotide is between 15-17 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B comprises at least one internucleotide linkage which is not a -O-P(O)₂-O- linkage.

Claim 74 (previously presented): An oligonucleotide according to claim 43, wherein:

A has a length of 4 nucleotide units;

B has a length between 7-9 nucleotide units;

C has a length of 3 nucleotide units;

D has 1 nucleotide unit;

the overall length of the oligonucleotide is between 15-17 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B comprises at least one internucleotide linkage which is not a phosphorothioate linkage.

Claim 75 (previously presented): An oligonucleotide according to claim 43, wherein

A has a length of 4 nucleotide units;

B has a length of 8 nucleotide units;

C has a length of 3 nucleotide units;

D has 1 nucleotide unit;

Application No. 10/717,434
Response to Final Office Action
Page -9-

58404(50533)

the overall length of the oligonucleotide is 16 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B represents a sequence of nucleotide units that makes the oligonucleotide able to recruit RNase H when hybridised to a target nucleic acid.

Claim 76 (previously presented): An oligonucleotide according to claim 43, wherein
A has a length of 4 nucleotide units;
B has a length of 8 nucleotide units;
C has a length of 3 nucleotide units;
D has 1 nucleotide units;

the overall length of the oligonucleotide is 16 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein the internucleoside linkages independently are selected from the group consisting of -O-P(O)₂-O-, -O-P(O,S)-O-, -O-P(S)₂-O-, -NR^H-P(O)₂-O-, -O-P(O,NR^H)-O-, -O-PO(R^N)-O-, -O-PO(CH₃)-O-, and -O-PO(NHR^N)-O- where R^H is selected from hydrogen and C₁₋₆-alkyl, and R^N is selected from C₁₋₆-alkyl and phenyl.

Claim 77 (previously presented): An oligonucleotide according to claim 43, wherein
A has a length of 4 nucleotide units;
B has a length of 8 nucleotide units;
C has a length of 3 nucleotide units;
D has 1 nucleotide units;

the overall length of the oligonucleotide is 16 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B comprises at least one internucleotide linkage which is not a -O-P(O)₂-O- linkage.

Claim 78 (previously presented): An oligonucleotide according to claim 43, wherein
A has a length of 4 nucleotide units;
B has a length of 8 nucleotide units;
C has a length of 3 nucleotide units;
D has 1 nucleotide units;

Application No. 10/717,434
Response to Final Office Action
Page -10-

58404(50533)

the overall length of the oligonucleotide is 16 nucleotide units;
the locked nucleotide units in A and C are beta-D-oxy-LNA units; and
wherein B comprises at least one internucleotide linkage which is not a
phosphorothioate linkage.

Claim 79 (previously presented): An oligonucleotide according to claim 43, wherein:

A has a length of 4 nucleotide units;

B has a length between 7-9 nucleotide units;

C has a length of 3 nucleotide units;

D has 1 nucleotide unit;

the overall length of the oligonucleotide is between 15-17 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; B represents a sequence of nucleotide units that makes the oligonucleotide able to recruit RNase H when hybridised to a target nucleic acid; and wherein the internucleoside linkages independently are selected from the group consisting of -O-P(O)₂-O-, -O-P(O,S)-O-, -O-P(S)₂-O-, -NR^H-P(O)₂-O-, -O-P(O,NR^H)-O-, -O-PO(R^N)-O-, -O-PO(CH₃)-O-, and -O-PO(NHR^N)-O- where R^H is selected from hydrogen and C₁₋₆-alkyl, and R^N is selected from C₁₋₆-alkyl and phenyl.

Claim 80 (previously presented): An oligonucleotide according to claim 79, wherein B comprises at least one internucleotide linkage which is not a -O-P(O)₂-O- linkage.

Claim 81 (previously presented): An oligonucleotide according to claim 79, wherein B comprises at least one internucleotide linkage which is not a phosphorothioate linkage.

Claim 82 (new): An oligonucleotide according to claim 43, wherein B has a length of between 4-12 nucleotide units.

Claim 83 (new): An oligonucleotide according to claim 43, wherein B has a length of between 6-20 nucleotide units.

Application No. 10/717,434
Response to Final Office Action
Page -11-

58404(50533)

Claim 84 (new): An oligonucleotide according to claim 43, wherein B has a length of between 7-20 nucleotide units.

Claim 85 (new): An oligonucleotide according to claim 43, wherein B has a length of between 8-20 nucleotide units.

Claim 86 (new): An oligonucleotide according to claim 43, wherein B has a sequence that comprises at least one DNA nucleotide unit.

Claim 87 (new): An oligonucleotide according to claim 43, wherein B has a sequence that consists of DNA nucleotide units.

Claim 88 (new): An oligonucleotide according to claim 83, wherein B has a sequence that comprises at least one DNA nucleotide unit.

Claim 89 (new): An oligonucleotide according to claim 83, wherein B has a sequence that consists of DNA nucleotide units.

Claim 90 (new): An oligonucleotide according to claim 84, wherein B has a sequence that comprises at least one DNA nucleotide unit.

Claim 91 (new): An oligonucleotide according to claim 84, wherein B has a sequence that consists of DNA nucleotide units.

Claim 92 (new): An oligonucleotide according to claim 85, wherein B has a sequence that comprises at least one DNA nucleotide unit.

Claim 93 (new): An oligonucleotide according to claim 85, wherein B has a sequence that consists of DNA nucleotide units.

Application No. 10/717,434
Response to Final Office Action
Page -12-

58404(50533)

Claim 94 (new): An oligonucleotide which has the formula (in 5' to 3' order): A-B-C-D, in which,

A represents a sequence of locked nucleotide units;

B represents a sequence of non-locked nucleotide units, wherein B has a length of 4-20 nucleotide units and wherein at least one unit within B has a 2'-deoxy pentofuranose sugar moiety;

C represents a sequence of locked nucleotide units; and

D represents a non-locked nucleotide unit or a sequence of non-locked nucleotide units.

Claim 95 (new): An oligonucleotide according to claim 85, wherein B has a sequence that comprises at least one DNA nucleotide unit.

Claim 96 (new): An oligonucleotide according to claim 85, wherein B has a sequence that consists of DNA nucleotide units.

Application No. 10/717,434
Response to Final Office Action
Page -2-

58404(50533)

RECEIVED
CENTRAL FAX CENTER

JAN 18 2007

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior listings thereof.

Claims 1-42 (cancelled).

Claim 43 (currently amended): An oligonucleotide which has the formula (in 5' to 3' order): A-B-C-D, in which,

A represents a sequence of locked nucleotide units;

B represents a sequence of non-locked nucleotide units, wherein B has a length of 4-20 nucleotide units;

C represents a sequence of locked nucleotide units; and

D represents a non-locked nucleotide unit or a sequence of non-locked nucleotide units.

Claim 44-46 (cancelled)

Claim 47 (previously presented): An oligonucleotide according to claim 43, wherein:

A has a length of between 2-6 nucleotide units;

B has a length of between 4-12 nucleotide units;

C has a length of between 1-5 nucleotide units;

D has a length of 1-3 nucleotide units;

and the overall length of the oligonucleotide is between 8-26 nucleotide units.

Claim 48 (currently amended): An oligonucleotide according to claim 43, wherein:

A has a length between 32-5 nucleotide units;

B has a length between 6-10 nucleotide units;

C has a length between 2-4 nucleotide units;

D has between 1-2 nucleotide units;

and the overall length of the oligonucleotide is between 12-21 nucleotide units.

Application No. 10/717,434
Response to Final Office Action
Page -3-

58404(50533)

Claim 49 (currently amended): An oligonucleotide according to claim 43, wherein:

A has a length of 2-5 ~~[[4]]~~ nucleotide units;

B has a length between 7-9 nucleotide units;

C has a length of 2-4 ~~3~~ nucleotide units;

D has a length of 1-2 nucleotide units;

and the overall length of the oligonucleotide is between 15-17 nucleotide units.

Claim 50 (previously presented): An oligonucleotide according to claim 43, wherein

A has a length of 4 nucleotide units;

B has a length of 8 nucleotide units;

C has a length of 3 nucleotide units;

D has 1 nucleotide unit;

and the overall length of the oligonucleotide is 16 nucleotide units.

Claim 51 (previously presented): An oligonucleotide according to claim 43, in which the locked nucleotide units in A and C are beta-D-oxy-LNA units.

Claim 52 (cancelled)

Claim 53 (currently amended): An oligonucleotide according to claim 45 94, in which the locked nucleotide units in A and C are beta-D-oxy-LNA units.

Claim 54 (cancelled)

Claim 55 (previously presented): An oligonucleotide according to claim 47, in which the locked nucleotide units in A and C are beta-D-oxy-LNA units.

Claim 56 (previously presented): An oligonucleotide according to claim 48, in which the locked nucleotide units in A and C are beta-D-oxy-LNA units.

Application No. 10/717,434
Response to Final Office Action
Page -4-

58404(50533)

Claim 57 (previously presented): An oligonucleotide according to claim 49, in which the locked nucleotide units in A and C are beta-D-oxy-LNA units.

Claim 58 (previously presented): An oligonucleotide according to claim 50, in which the locked nucleotide units in A and C are beta-D-oxy-LNA units.

Claim 59 (previously presented): An oligonucleotide according to claim 43, wherein the internucleoside linkages independently are selected from the group consisting of $-O-P(O)_2-O-$, $-O-P(O,S)-O-$, $-O-P(S)_2-O-$, $-NR^H-P(O)_2-O-$, $-O-P(O,NR^H)-O-$, $-O-PO(R'')-O-$, $-O-PO(CH_3)-O-$, and $-O-PO(NHR^N)-O-$, where R^H is selected from hydrogen and C_{1-6} -alkyl, and R'' is selected from C_{1-6} -alkyl and phenyl.

Claim 60 (previously presented): An oligonucleotide according to claim 43, in which B comprises at least one internucleotide linkage which is not a $-O-P(O)_2-O-$ linkage.

Claim 61 (previously presented): An oligonucleotide according to claim 43, in which B comprises at least one internucleotide linkage which is not a phosphorothioate linkage.

Claim 62 (previously presented): An oligonucleotide according to claim 43, in which B represents a sequence of nucleotide units that makes the oligonucleotide able to recruit RNase H when hybridised to a target nucleic acid.

Claim 63 (currently amended): An oligonucleotide according to claim 43, wherein:
A has a length between 3-5 nucleotide units;
B has a length between 6-10 nucleotide units;
C has a length between 2-4 nucleotide units;
D has a length between 1-2 nucleotide units;
the overall length of the oligonucleotide is between 12-21 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B represents a

Application No. 10/717,434
Response to Final Office Action
Page -5-

58404(50533)

sequence of nucleotide units that makes the oligonucleotide able to recruit RNase H when hybridised to a target nucleic acid.

Claim 64 (currently amended): An oligonucleotide according to claim 43 wherein:

A has a length between 3-5 nucleotide units;

B has a length between 6-10 nucleotide units;

C has a length between 2-4 nucleotide units;

D has a length between 1-2 nucleotide units;

the overall length of the oligonucleotide is between 12-21 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein the internucleoside linkages independently are selected from the group consisting of -O-P(O)₂-O-, -O-P(O,S)-O-, -O-P(S)₂-O-, -NR^H-P(O)₂-O-, -O-P(O,NR^H)-O-, -O-PO(R^N)-O-, -O-PO(CH₃)-O-, and -O-PO(NHR^N)-O- where R^H is selected from hydrogen and C₁₋₆-alkyl, and R^N is selected from C₁₋₆-alkyl and phenyl.

Claim 65 (currently amended): An oligonucleotide according to claim 43, wherein:

A has a length between 3-5 nucleotide units;

B has a length between 6-10 nucleotide units;

C has a length between 2-4 nucleotide units;

D has a length between 1-2 nucleotide units;

the overall length of the oligonucleotide is between 12-21 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B comprises at least one internucleoside linkage which is not a -O-P(O)₂-O- linkage.

Claim 66 (currently amended): An oligonucleotide according to claim 43, wherein:

A has a length between 3-5 nucleotide units;

B has a length between 6-10 nucleotide units;

C has a length between 2-4 nucleotide units;

D has a length between 1-2 nucleotide units;

Application No. 10/717,434
Response to Final Office Action
Page -6-

58404(50533)

the overall length of the oligonucleotide is between 12-21 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B comprises at least one internucleotide linkage which is not a phosphorothioate linkage.

Claim 67 (previously presented): An oligonucleotide according to claim 43, wherein:

A has a length between 2-6 nucleotide units;

B has a length between 4-12 nucleotide units;

C has a length between 1-5 nucleotide units;

D has a length between 1-3 nucleotide units;

the overall length of the oligonucleotide is between 8-26 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B represents a sequence of nucleotide units that makes the oligonucleotide able to recruit RNase H when hybridised to a target nucleic acid.

Claim 68 (previously presented): An oligonucleotide according to claim 43, wherein:

A has a length between 2-6 nucleotide units;

B has a length between 4-12 nucleotide units;

C has a length between 1-5 nucleotide units;

D has a length between 1-3 nucleotide units;

the overall length of the oligonucleotide is between 8-26 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein the internucleoside linkages independently are selected from the group consisting of -O-P(O)₂-O-, -O-P(O,S)-O-, -O-P(S)₂-O-, -NR^H-P(O)₂-O-, -O-P(O,NR^H)-O-, -O-PO(R'')-O-, -O-PO(CH₃)-O-, and -O-PO(NHR^N)-O- where R^H is selected from hydrogen and C₁₋₆-alkyl, and R'' is selected from C₁₋₆-alkyl and phenyl.

Claim 69 (previously presented): An oligonucleotide according to claim 43, wherein:

A has a length between 2-6 nucleotide units;

B has a length between 4-12 nucleotide units;

C has a length between 1-5 nucleotide units;

Application No. 10/717,434
Response to Final Office Action
Page -7-

58404(50533)

D has a length between 1-3 nucleotide units; the overall length of the oligonucleotide is between 8-26 nucleotide units;
the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B comprises at least one internucleotide linkage which is not a -O-P(O)₂-O- linkage.

Claim 70 (previously presented): An oligonucleotide according to claim 43, wherein:
A has a length between 2-6 nucleotide units;
B has a length between 4-12 nucleotide units;
C has a length between 1-5 nucleotide units;
D has a length between 1-3 nucleotide units; the overall length of the oligonucleotide is between 8-26 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B comprises at least one internucleotide linkage which is not a phosphorothioate linkage.

Claim 71 (previously presented): An oligonucleotide according to claim 43, wherein:
A has a length of 4 nucleotide units;
B has a length between 7-9 nucleotide units;
C has a length of 3 nucleotide units;
D has 1 nucleotide unit;
the overall length of the oligonucleotide is between 15-17 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B represents a sequence of nucleotide units that makes the oligonucleotide able to recruit RNase H when hybridised to a target nucleic acid.

Claim 72 (previously presented): An oligonucleotide according to claim 43, wherein:
A has a length of 4 nucleotide units;
B has a length between 7-9 nucleotide units;
C has a length of 3 nucleotide units;
D has 1 nucleotide unit;

Application No. 10/717,434
Response to Final Office Action
Page -8-

58404(50533)

the overall length of the oligonucleotide is between 15-17 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein the internucleoside linkages independently are selected from the group consisting of -O-P(O)₂-O-, -O-P(O,S)-O-, -O-P(S)₂-O-, -NR^H-P(O)₂-O-, -O-P(O,NR^H)-O-, -O-PO(R^N)-O-, -O-PO(CH₃)-O-, and -O-PO(NHR^N)-O- where R^H is selected from hydrogen and C₁₋₆-alkyl, and R^N is selected from C₁₋₆-alkyl and phenyl.

Claim 73 (previously presented): An oligonucleotide according to claim 43, wherein:

A has a length of 4 nucleotide units;

B has a length between 7-9 nucleotide units;

C has a length of 3 nucleotide units;

D has 1 nucleotide unit;

the overall length of the oligonucleotide is between 15-17 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B comprises at least one internucleotide linkage which is not a -O-P(O)₂-O- linkage.

Claim 74 (previously presented): An oligonucleotide according to claim 43, wherein:

A has a length of 4 nucleotide units;

B has a length between 7-9 nucleotide units;

C has a length of 3 nucleotide units;

D has 1 nucleotide unit;

the overall length of the oligonucleotide is between 15-17 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B comprises at least one internucleotide linkage which is not a phosphorothioate linkage.

Claim 75 (previously presented): An oligonucleotide according to claim 43, wherein

A has a length of 4 nucleotide units;

B has a length of 8 nucleotide units;

C has a length of 3 nucleotide units;

D has 1 nucleotide unit;

Application No. 10/717,434
Response to Final Office Action
Page -9-

58404(50533)

the overall length of the oligonucleotide is 16 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B represents a sequence of nucleotide units that makes the oligonucleotide able to recruit RNase H when hybridised to a target nucleic acid.

Claim 76 (previously presented): An oligonucleotide according to claim 43, wherein
A has a length of 4 nucleotide units;
B has a length of 8 nucleotide units;
C has a length of 3 nucleotide units;
D has 1 nucleotide units;

the overall length of the oligonucleotide is 16 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein the internucleoside linkages independently are selected from the group consisting of -O-P(O)₂-O-, -O-P(O,S)-O-, -O-P(S)₂-O-, -NR^H-P(O)₂-O-, -O-P(O,NR^H)-O-, -O-PO(R'')-O-, -O-PO(CH₃)-O-, and -O-PO(NHR^N)-O- where R^H is selected from hydrogen and C₁₋₆-alkyl, and R'' is selected from C₁₋₆-alkyl and phenyl.

Claim 77 (previously presented): An oligonucleotide according to claim 43, wherein
A has a length of 4 nucleotide units;
B has a length of 8 nucleotide units;
C has a length of 3 nucleotide units;
D has 1 nucleotide units;

the overall length of the oligonucleotide is 16 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; and wherein B comprises at least one internucleotide linkage which is not a -O-P(O)₂-O- linkage.

Claim 78 (previously presented): An oligonucleotide according to claim 43, wherein
A has a length of 4 nucleotide units;
B has a length of 8 nucleotide units;
C has a length of 3 nucleotide units;
D has 1 nucleotide units;

Application No. 10/717,434
Response to Final Office Action
Page -10-

58404(50533)

the overall length of the oligonucleotide is 16 nucleotide units;
the locked nucleotide units in A and C are beta-D-oxy-LNA units; and
wherein B comprises at least one internucleotide linkage which is not a
phosphorothioate linkage.

Claim 79 (previously presented): An oligonucleotide according to claim 43, wherein:

A has a length of 4 nucleotide units;

B has a length between 7-9 nucleotide units;

C has a length of 3 nucleotide units;

D has 1 nucleotide unit;

the overall length of the oligonucleotide is between 15-17 nucleotide units; the locked nucleotide units in A and C are beta-D-oxy-LNA units; B represents a sequence of nucleotide units that makes the oligonucleotide able to recruit RNase H when hybridised to a target nucleic acid; and wherein the internucleoside linkages independently are selected from the group consisting of -O-P(O)₂-O-, -O-P(O,S)-O-, -O-P(S)₂-O-, -NR^H-P(O)₂-O-, -O-P(O,NR^H)-O-, -O-PO(Rⁿ)-O-, -O-PO(CH₃)-O-, and -O-PO(NHR^N)-O- where R^H is selected from hydrogen and C₁₋₆-alkyl, and Rⁿ is selected from C₁₋₆-alkyl and phenyl.

Claim 80 (previously presented): An oligonucleotide according to claim 79, wherein B comprises at least one internucleotide linkage which is not a -O-P(O)₂-O- linkage.

Claim 81 (previously presented): An oligonucleotide according to claim 79, wherein B comprises at least one internucleotide linkage which is not a phosphorothioate linkage.

Claim 82 (new): An oligonucleotide according to claim 43, wherein B has a length of between 4-12 nucleotide units.

Claim 83 (new): An oligonucleotide according to claim 43, wherein B has a length of between 6-20 nucleotide units.

Application No. 10/717,434
Response to Final Office Action
Page -11-

58404(50533)

Claim 84 (new): An oligonucleotide according to claim 43, wherein B has a length of between 7-20 nucleotide units.

Claim 85 (new): An oligonucleotide according to claim 43, wherein B has a length of between 8-20 nucleotide units.

Claim 86 (new): An oligonucleotide according to claim 43, wherein B has a sequence that comprises at least one DNA nucleotide unit.

Claim 87 (new): An oligonucleotide according to claim 43, wherein B has a sequence that consists of DNA nucleotide units.

Claim 88 (new): An oligonucleotide according to claim 83, wherein B has a sequence that comprises at least one DNA nucleotide unit.

Claim 89 (new): An oligonucleotide according to claim 83, wherein B has a sequence that consists of DNA nucleotide units.

Claim 90 (new): An oligonucleotide according to claim 84, wherein B has a sequence that comprises at least one DNA nucleotide unit.

Claim 91 (new): An oligonucleotide according to claim 84, wherein B has a sequence that consists of DNA nucleotide units.

Claim 92 (new): An oligonucleotide according to claim 85, wherein B has a sequence that comprises at least one DNA nucleotide unit.

Claim 93 (new): An oligonucleotide according to claim 85, wherein B has a sequence that consists of DNA nucleotide units.

Application No. 10/717,434
Response to Final Office Action
Page -12-

58404(50533)

Claim 94 (new): An oligonucleotide which has the formula (in 5' to 3' order): A-B-C-D, in which,

A represents a sequence of locked nucleotide units;

B represents a sequence of non-locked nucleotide units, wherein B has a length of 4-20 nucleotide units and wherein at least one unit within B has a 2'-deoxy pentofuranose sugar moiety;

C represents a sequence of locked nucleotide units; and

D represents a non-locked nucleotide unit or a sequence of non-locked nucleotide units.

Claim 95 (new): An oligonucleotide according to claim 85, wherein B has a sequence that comprises at least one DNA nucleotide unit.

Claim 96 (new): An oligonucleotide according to claim 85, wherein B has a sequence that consists of DNA nucleotide units.